

REMARKS

The Applicant respectfully requests consideration of this response and amendment. No new matter is added by way of the present amendment. In the Office action dated January 30, 2003, the Office rejected all the claims in the application as either being anticipated by or obvious in view of the cited art. By this amendment claims 1, 5-8, 14, and 17 are amended, claims 2-4, 9-13, 15-16, and 18 have been cancelled, and claims 19-35 have been added. Entry of this Amendment and reconsideration of claims 1, 5-8, 14, 17, and 19-35 are respectfully requested.

The Office objected to the disclosure because of several spelling errors. Applicant has reviewed the specification and made appropriate corrections to the errors as indicated in the replacement paragraphs starting on page 7 of this document.

Claims 1-4, 8-12, and 14-18 were rejected as being anticipated by U.S. Patent No. 6,253,218, issued to Aoki. According to the Office, the Aoki reference discloses providing a database comprising a plurality of data models, each data model containing a representation of a time/space relationship and presenting at least one selected data model such that the information can be viewed on spatial or time relationships.

In broad terms, the Aoki reference relates to a method and system of displaying information on a video monitor or similar device such that files may be viewed in three dimensions. In broad terms, Applicant's invention relates to a new data model¹ or method of modeling data. An example will help explain this further. Aoki displays files or folders in a three dimensional manner where those files and folders may be associated with a date and a category axis. However, the underlying layout of the data in those files is not of that much importance to Aoki and could, for example, be structured as a group of tables with defined relationships among those tables. In other words, the data could be laid out, structured, or organized as a relational database. In any event, Aoki does not expressly define a data model.

In contrast, Applicant does define a data model. And, even though data organized according to the data model and method disclosed by the Applicant may be presented in a representation that is capable of being viewed by a person, the Aoki reference is actually

¹ According to the Microsoft Computer Dictionary, 4th edition (1999), a data model is "a collection of related object types, operators, and integrity rules that form the abstract entity supported by a database management system (DBMS). Thus, one speaks of [1] a relational DBMS, [2] a network DBMS, and so on, depending on the data model a DBMS supports." Id. at 125-26. Applicant has named its data model the "Worldline" data model.

quite un-related to the field of data modeling. Aoki simply takes existing data and creates a new display. Thus, rather than truly posing a barrier to patentability, the only question is whether the claims, as now amended and properly construed, read on the subject matter disclosed by Aoki. In order to ensure that the claims not be given so broad a scope as to read on a method of 3D visualization and presentation of information as disclosed by Aoki, Applicant has modified the claims to more clearly indicate that it is claiming a data model or method of modeling data with data elements. Applicant respectfully submits (as will be explained in further detail below) that the subject matter now claimed is neither anticipated by or rendered obvious in view of the cited art.

As amended, claim 1 reads as follows:

1. (currently amended) A computer implemented method of for presenting modeling information using a combination of space and time relationships and hierarchical, semantic relationships, the method comprising:

providing at least one database comprising a plurality of data models elements, each of said data models elements having a mechanism to containing a representation of data in a space and time relationship; and
presenting organizing at least one selected each data element model such that the information can be viewed based on spatial relationships or time relationships each data element may have at least one frame, each frame containing quantitative data along time and space axes, and such that each data element may have at least one event, each event configured so that it may be positioned along the time axis and include at least one hierarchical connection to at least one other of the plurality of data elements; and
wherein the hierarchical connection between each of the plurality of data elements is made through at least one event in each of two or more of the plurality of data elements with a link, the link defined by a link model, each link model categorizing data and indicating the purpose of the associated link.

It is respectfully submitted that Aoki neither discloses nor suggests the subject matter of claim 1, as amended.

The Office has asserted that Aoki discloses a database containing a plurality of data models where each model contains a representation of data in a time and space relationship. What Aoki discloses in col. 2, lines 7-28, is a “database of files.” The data layout for the files is never addressed in Aoki and what is created is a visualization of the files according to a time of creation and a category on a coordinate system.

The Office has also asserted that Aoki teaches a database of events and sub-events (at col. 20, line 55 to col. 21, line 6). The Applicant respectfully disagrees. The cited section indicates that the 3D coordinate memory is divided into sub-spaces. This is done to ensure that there is enough room to present the files on a video monitor or display to a user. Aoki never uses the words “event” or “sub-events.” Thus, it is unclear how the Office equates the

“space” and “sub-spaces” in Aoki to the “events” in Applicant’s claims. For example, even if one takes the broadest possible definition of “space” (in a metaphysical sense) as meaning the three dimensional expanse in which objects exist **and events occur**, by that very definition a “space” is not an “event.” (As things that occur in space, events are not spaces and sub-spaces are not sub-events.) More to the point, Aoki does not use “space” in the metaphysical sense, but is talking about a specific area in memory and how items are to be displayed on screen. (See col. 20, lines 30-54, which directly precedes the section cited by the Office). Applicant is claiming a data model that includes events, not spaces or areas. Therefore, Aoki does not disclose the claimed subject matter.

The Office has also asserted that Aoki then connects the events in a time and space relationship and then links the events to provide a specific context. The Office cites various sections of Aoki, which the Applicant addresses seriatim.

Connecting of events is allegedly disclosed in col. 45, lines 9-23. This section indicates that a “link means” correlates the data to a figure (used in the display image that is output to a user). What this amounts to is taking a piece of data, creating or otherwise obtaining an image that represents that very same data and then connecting that data to the image. In other words, it’s like having two representations of the same thing connected to one another. Thus, Aoki is not connecting data elements through one or more events, as claimed.

The Office also asserts that Aoki teaches linking the modified data model to other data models through one of the events to add specific context to the links between the data models, citing to col. 45, lines 9-23. This section indicates that data used by a “model generating section 130” (here “model” refers to the image displayed to a person) is stored in a table. The cited section also indicates that criteria used by the “model generating section 130” is stored in, presumably, the same table. Furthermore, it seems that each item has its own table and, as best as Applicant can tell, it does not appear that the tables are linked. In any event, it is unclear to the Applicant how the cited section discloses linking of multiple data models through an “event,” particularly when Aoki is not concerned with events, but spaces, as noted above.

In light of the above, it is submitted that Aoki does not teach what has been asserted. Therefore, the Section 102 rejections of claims 1, 8, 14, and 17 should be rescinded. It is noted that claim 17 has been modified to clarify the claimed subject matter and to incorporate the substance of dependent claim 18 (now cancelled) to ensure that there is no question that the claim is patentable over the cited art.

Regarding, the possible application of Aoki in combination with other references against the claims, Applicant notes the following. As indicated, a fair reading of Aoki indicates that it teaches methods and techniques of presenting data in a 3D form so that a user can avoid, for example, scrolling down long lists of file folders (for example, folders that might be created in Microsoft Outlook software to hold email messages.) It is not, in general, concerned with data structures or models. The Newman reference relates to methods and devices for presenting historical information. Ultimately, the determination of how the information is presented in Newman is based on determining the geographical location of the user and “character and characterization variables.” Again, however, Newman is not concerned with the data model that defines how the data is structured.

Much of what was said with respect to the combination of Aoki and Newman is applicable to the combination of Aoki and the other references. Gross discloses a genealogical analysis tool, which appears to be no more than an implementation of a relational database specifically adapted to trace genealogical relationships. Gilbert appears to disclose a data model that defines structured data, but the structure is based on nodes, not events. In short, even if some reason for making a combination of the references can be supported, it does not appear that the collective teachings of the references disclose or suggest each and every element of the claims, as now amended. Accordingly, the Section 103 rejections of the claims should also be rescinded.

New claims 19-35 are allowable for the same reason that claims 1, 8, 14, and 17 are allowable.

The Applicant kindly requests that the Examiner telephone the attorneys of record in the event a telephone discussion would be helpful in advancing the prosecution of the present application.

Respectfully submitted,



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